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(54) HARD FILM, HARD FILM COATED TOOL AND HARD FILM COATED MEMBER EXCELLENT IN WEAR RESISTANCE

(57)Abstract:

PURPOSE: To produce a hard film excellent in oxidation resistance by (Al, Ti)(C, N), furthermore having high hardness and showing excellent wear resistance without deteriorating the base material adhesion characteristic of the TiN film.

CONSTITUTION: The film formed on the surface of a base material has a chemical compsn. shown by $(Al_xTi_{1-x}ySi_y)(N_2C_{1-z})$; where $0.05 \leq x \leq 0.75$, $0.01 \leq y \leq 0.1$ and $0.64 \leq z \leq 1$. The thickness of this hard film is preferably regulated to 0.1 to 20 μ m, and in the case the same hard film is formed on the surface of the base material by an arc discharge-system ion plating method, the hard film coated tool and hard film coated member excellent in wear resistance can be obtd.

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